

REMARKS/ARGUMENTS

Favorable reconsideration of this application as presently amended and in light of the following discussion is respectfully requested.

Claims 1-18, 20-27, and 29-33 are presently pending in this case. Claims 1, 5, 8, 12, 17, 18, 21, 24, 25, and 27 are amended, Claims 19 and 28 are canceled without prejudice or disclaimer, and new Claims 31-33 are added by the present amendment. As amended Claims 1, 5, 8, 12, 17, 18, 21, 24, 25, and 27 and new Claims 31-33 are supported by the original disclosure,¹ no new matter is added.

In the outstanding Official Action, Claims 1-4, 6-11, and 13-16 were apparently rejected under 35 U.S.C. §103(a) as unpatentable over as Mitsui et al. (U.S. Patent No. 5,626,979, hereinafter “Mitsui”) in view of Victor Company of Japan (Japanese Patent Application Publication No. 1-155654, hereinafter “Victor”)²; Claims 5 and 12 were rejected under 35 U.S.C. §103(a) as unpatentable over as Mitsui in view of Victor and further in view of Huang (U.S. Patent Application Publication No. 20030027042); Claims 17, 18, 20-27, 29, and 30 were rejected under 35 U.S.C. §103(a) as unpatentable over as Takeshita et al. (U.S. Patent No. 6,521,370, hereinafter “Takeshita”) in view of Victor; and Claims 19 and 28 were rejected under 35 U.S.C. §103(a) as unpatentable over as Takeshita et al. (U.S. Patent No. 6,521,370, hereinafter “Takeshita”) in view of Victor and further in view of Mitsui.

The abstract is amended herewith to place it in conformance with U.S. practice. No new matter is added.

Claims 17, 18, and 27 are amended to correct informalities.

With regard to the rejection of Claims 1 and 8 as unpatentable over as Mitsui in view of Victor, that rejection is respectfully traversed.

¹See, e.g., the specification at paragraphs 48 and 70 of the publication of the specification and Figures 1 and 11.

²Page 2 of the outstanding Office Action only refers to Claims 1 and 2, and page 11 refers to Takeshita with regard to Claims 15 and 16.

Amended Claim 1 recites in part:

a convex portion projecting in the length direction from an end surface of the case and extending in the width direction along the end surface of the case, the convex portion disposed in a distance in the thickness direction from the battery-side terminal.

Thus, the claimed invention provides a convex portion that projects out from the end surface of the case to protect the electrodes of the battery-side terminal from water or other materials when the battery is connected to the device. For example, Figure 11 of the present specification shows a convex portion 1024 received in recess groove 3010 such that battery side terminal 14 is protected from outside elements.

The outstanding Office Action conceded that Mitsui does not describe “a convex portion” as recited in original Claim 1, but concluded that it would be obvious to move engagement boss 73 of Mitsui to battery pack 31.³ However, it is respectfully noted that engagement boss 73 of Mitsui is simply used to guide the battery pack 31 into the correct position. Thus, engagement boss 73 of Mitsui provides no protection to terminals 37 and 38 of Mitsui because engagement boss is in the center of the battery case (widthwise), and terminals 37 and 38 are at the edges of the battery case. Further, it is respectfully submitted that engagement boss 73 of Mitsui could not be located on battery pack 31 without significantly increasing the size of the battery receiving casing 64, especially in light of the discussion at column 11, lines 1-22 describing that the engagement boss needs to have a significant length, such as 15 mm. As minimizing the size of casing 64 is clearly the intended purpose of Mitsui, it is respectfully submitted there can be no suggestion or motivation to make the proposed modification, which would increase the length of casing 64 by at least 15 mm in the disclosed example, making the modified casing unsatisfactory for its intended purpose. (If proposed modification would render the prior art invention being

³See the outstanding Office Action at page 5.

modified unsatisfactory for its intended purpose, then there is no suggestion or motivation to make the proposed modification. *In re Gordon*, 733 F.2d 900, 221 USPQ 1125 (Fed. Cir. 1984) See MPEP §2143.01.)

Thus, as it is respectfully submitted that Mitsui does not teach “a convex portion” as defined in amended Claim 1, and there is no suggestion or motivation to make the proposed modification to Mitsui, Claim 1 (and Claims 2-7, 14-16, and 31 dependent therefrom) is patentable over Mitsui in view of Victor.

Amended Claim 8 recites in part “a recess groove configured to receive the convex portion of the battery when the battery is mounted in the battery mounting section.”

As noted above, the combination of a convex portion that projects out from the end surface of the battery case and a groove the convex portion on the device serves to protect the electrodes of the battery-side terminal from water or other materials when the battery is connected to the device. Further, engagement boss 73 and hole 52 in battery pack 31 of Mitsui provide no protection to terminals 37 and 38 of Mitsui. Moreover, moving hole 52 onto casing 64 which would increase the length of casing 64 by at least 15 mm in the disclosed example, making the modified casing 64 unsatisfactory for its intended purpose. Thus, as it is respectfully submitted that Mitsui does not teach “a recess groove” as defined in amended Claim 8, and there is no suggestion or motivation to make the proposed modification to Mitsui, Claim 8 (and Claims 9-13 dependent therefrom) is also patentable over Mitsui in view of Victor.

With regard to the rejection of Claims 17 and 24 as unpatentable over as Takeshita in view of Victor, that rejection is overcome by the addition of the subject matter of Claims 19 and 28 to Claims 17 and 24. With regard to the rejection of Claims 19 and 28 as unpatentable over as Takeshita in view of Victor and further in view of Matsui, that rejection is respectfully traversed with respect to amended Claims 17 and 24.

Amended Claims 17 and 24 also recite in part:

a ... convex portion projecting in the length direction from an end surface of the case and extending in the width direction along the end surface of the case, the ... convex portion disposed in a distance in the thickness direction from the battery-side terminal.

As noted above, the claimed invention provides a convex portion that projects out from the end surface of the case to protect the electrodes of the battery-side terminal from water or other materials when the battery is connected to the device.

The outstanding Office Action conceded that Takeshita, Victor, and Mitsui do not describe “a convex portion” as recited in original Claims 19 and 28, but concluded that it would be obvious to move engagement boss 73 of Mitsui to battery pack 31.⁴ However, as noted above, engagement boss 73 of Mitsui provides no protection to terminals 37 and 38 of Mitsui because engagement boss is in the center of the battery case (widthwise), and terminals 37 and 38 are at the edges of the battery case. Further, as minimizing the size of loading section 43 is clearly the intended purpose of Takeshita, it is respectfully submitted there can be no suggestion or motivation to make the proposed modification, which would increase the length of loading section 43 by at least 15 mm in the disclosed example to accommodate the engagement boss 73 of Mitsui, making the modified loading section unsatisfactory for its intended purpose.

Thus, as it is respectfully submitted that Mitsui does not teach “a ... convex portion projecting in the length direction from an end surface of the case and extending in the width direction along the end surface of the case” as defined in amended Claims 17 and 24, and there is no suggestion or motivation to make the proposed modification to Takeshita, Claims 17 and 24 (and Claims 18, 20-23, 25-28, 30, 32, and 33 dependent therefrom) is patentable over Takeshita in view of Victor and further in view of Mitsui.

⁴See the outstanding Office Action at page 19.

New Claims 31-33 are supported at least by the specification at paragraph 48 of the publication and Figure 1. New Claims 31-33 are dependent on Claims 1, 17, and 24, and thus are believed to be patentable for at least the reasons described above with respect to these claims. In addition, Claims 31-33 recite subject matter that further patentably defines over the cited references. Consequently, Claims 31-33 are also allowable.

Accordingly, the pending claims are believed to be in condition for formal allowance. An early and favorable action to that effect is respectfully requested.

Respectfully submitted,

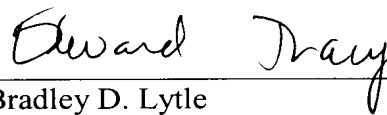
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